Sierra Army Depot

ISO 14001:2004

Environmental Management System (EMS) Awareness Training

Protecting our Environment is Everyone's Job

Executive Order 13423

signed 01/24/2007, from the President of the United States

Sec. 3. *Duties of Heads of Agencies*. In implementing the policy set forth in this order, **the head of each agency shall:**

(b) implement within the agency environmental management systems (EMS) at **all appropriate organizational levels** to ensure

(i) use of EMS as the **primary *management* approach for addressing environmental aspects** of internal agency operations and activities, **including environmental aspects of energy and transportation functions**,

(ii) **establishment of agency objectives and targets** to ensure implementation of this order, and

(iii) **collection, analysis, and reporting of information** to measure performance in the implementation of this order.

ISO 14001:2004

As defined in ISO 14001:2004, an Environmental Management System (EMS) is; "part of an organization's management system used to develop and **implement its environmental policy** and **manage its environmental aspects"** enabling an organization of any size or type to:

identify and control the **environmental impact** of its activities, products or services; and to

implement a **systematic approach** to setting **environmental objectives and targets**, to achieving these and to demonstrate that they have been achieved; and to

continually **improve** its' environmental performance.

SIAD Policy #200-2
18 AUGUST 2009

ENVIRONMENTAL

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Environmental/Occupational Health and Safety Policy #200-2

1. Sierra Army Depot (SIAD) is a member of the Army's Organic Industrial Base reporting to U.S. Army Tank Automotive and Armaments Life Cycle Management Command (TACOM LCMC). SIAD considers the environment and safety to be of paramount importance and is committed to leadership and stewardship in protection of the environment and workplace safety. Environmental and safety management is based on the principles of continual improvement, sustainability, hazard identification and control, and pollution prevention as appropriate in furtherance of our goal of protecting our environment and our workers.

2. Sierra Army Depot complies with applicable federal, local, and state regulations in addition to other requirements for the support and storage of military assets. SIAD reviews the environmental objectives and targets annually or when new types of work are received. At no time is any operation allowed unless it can be demonstrated that the operation will be performed safely, is environmentally sound, and in compliance with all regulations, installation policies, and guidance documents to minimize impacts on air, ground, and water.

3. Sierra Army Depot conducts operations in a manner which protects the community and minimizes or prevents adverse impact to environmental media through environmental controls. The installation protects it workers through the application of hazard identification, risk assessment and implementation of risk controls. Environmental and safety controls take precedence over shortcuts, expediency or acts of convenience.

JOSEPH G. DALESSIO
LTC, LG
Commanding

DISTRIBUTION:
All Employees
All Directorates
Special Staff

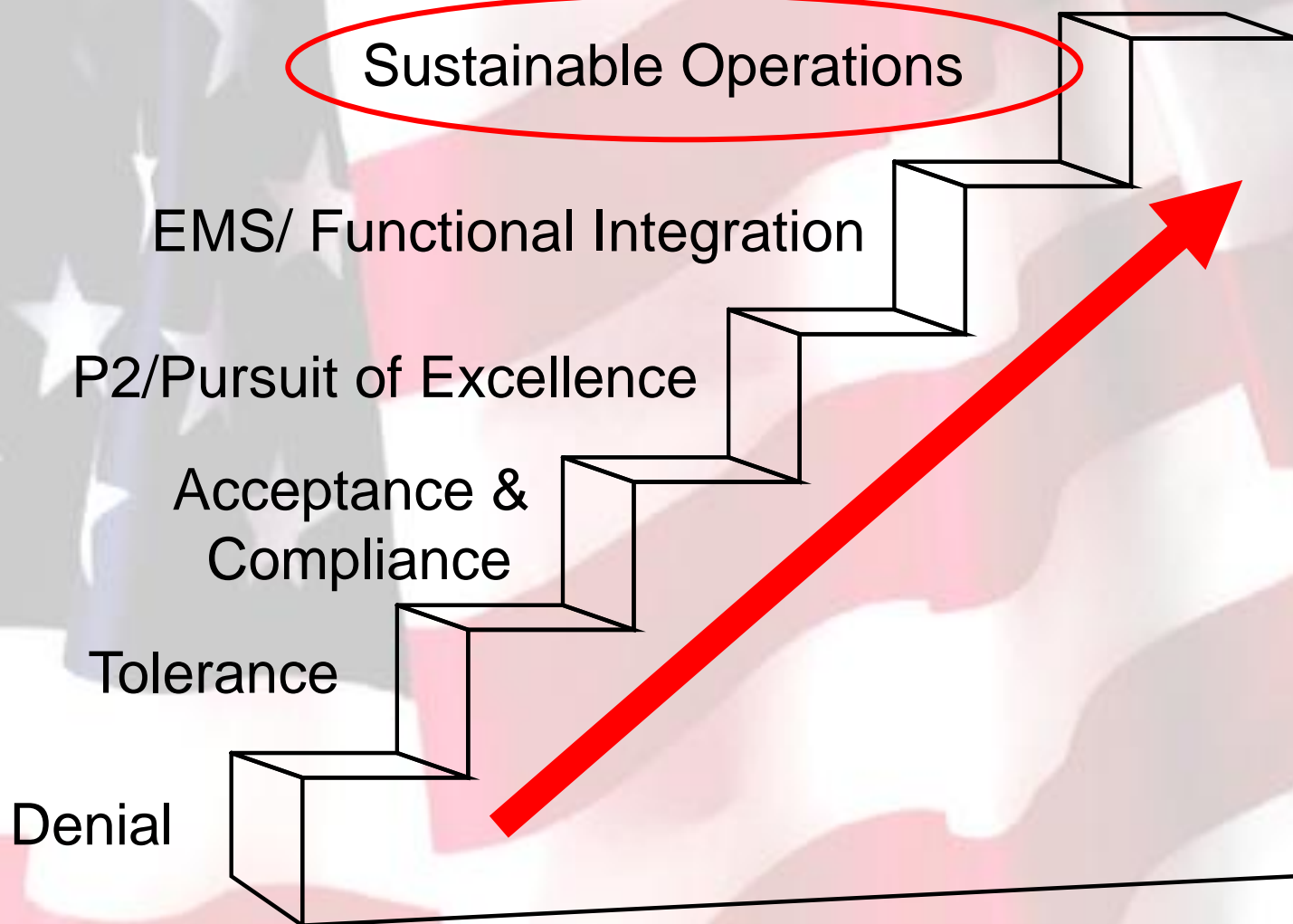# *Sierra Army Depot Environmental Policy (paraphrased)*

A **commitment to the continual improvement** of SIAD's environmental performance.

The environmental policy is used as a framework to **identify environmental aspects, impacts, objectives and targets**.

SIAD's environmental policy focuses on compliance with legal and regulatory requirements while **emphasizing pollution prevention** and **protection of the environment**.

Evolution of Environmental Management

Sustainable Operations

EMS/ Functional Integration

P2/Pursuit of Excellence

Acceptance & Compliance

Tolerance

Denial

Adapted from ALCOA Presentation, "Our Story," Pentagon, March 2001

ISO 14001 Requirements

PLAN

4.2 Environmental Policy
4.3.1 Environmental Aspects
4.3.2 Legal and Other Requirements
4.3.3 Objectives, Targets and Programs

DO

4.4.1 Resources, Roles, Responsibility and Authority
4.4.2 Competence, Training and Awareness
4.4.3 Communication
4.4.4 Documentation
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ACT

4.6 Management Review

CHECK

4.5.1 Monitoring and Measurement
4.5.2 Evaluation of Compliance
4.5.3 Nonconformity, Corrective Action and Preventive Action
4.5.4 Control of Records
4.5.5 Internal Audit

EMS OVERVIEW

➢ "Plan" what you will Do

➢ "Do" according to your Plan

➢ "Check" to see if you did what you planned   worked

➢ "Act" to change or improve the part of your   Plan or Do that did not give you the results you intended

➢ **Key Concept of ISO 14001:** "Say what you do and do what you say!"

ISO 14001 Standard

❖ 4.1 is the General Requirement – "shall establish, document, implement, maintain and continually improve an EMS"

❖ Followed by 17 clauses that contain requirements that must be "established, implemented and maintained"

4.2 Environmental Policy

➢ Top Management defines an "appropriate" environmental policy. It will be used in setting and reviewing objectives and targets

➢ Environmental Policy must commit to continual improvement, prevention of pollution and compliance with regulations and other requirements

➢ Documented, implemented and maintained

➢ Communicated to "all persons working for or on its behalf" (e.g., employees, contractors, volunteers, etc.)

➢ Available to Public

4.3.1 Environmental Aspects

Establish, implement and maintain a procedure to:

- identify environmental aspects that it can control and those it can influence

- Determine which aspects have or can have significant environmental impacts

- Document and keep information up-to-date

- Ensure that significant environmental aspects are taken into account in the EMS

Environmental Aspects and Impacts Definitions

❑ **Environment**: Surroundings in which an organization operates and has influence on, including air, water, land, natural resources, flora, fauna, humans, and their relation.

❑ **Environmental Aspect**: (**WHAT**) element of an organization's activities, products or services that can interact with the environment.

❑ **Environmental Impact**: (**HOW**) any element can change the environment, whether adverse or beneficial, resulting from an organization's activities, products or services.

Environmental Aspects and Impacts Examples

Everybody at SIAD has a role in managing the EMS program.

❑ **Environmental Aspects**: Recyclables (paper, toner cartridges, lead acid batteries, etc.). Hazardous materials (oil, fuels, paints, etc.). Hazardous waste (anything that was a hazardous material and is no longer useable for its intended purpose, no longer wanted, and cannot be recycled becomes hazardous waste). Utilities (turning off lights, electricity conservation, water conservation, etc.).

❑ **Environmental Impacts**: Solid waste going to the landfill (ground), hazardous material/waste spills (ground, groundwater), emissions (air).

Environmental Aspect and Impact Examples

- Hazardous materials in storage, flammable storage cabinets, etc.

- Calibration of measuring, weighing, monitoring equipment. Equipment not operating properly may have an adverse impact.

- Hazardous waste is an environmental aspect that would be an environmental impact if spilled or released and would be a nonconformance if improperly stored or labeled.

- Paint / Blast booth filter changes are environmental aspects because they minimize air emissions.

Significant Environmental Aspect Areas

Drinking Water
Hazardous Waste Management
Open Burn/Open Detonation (OB/OD) Hill Clean-up
Equipment Painting

Big 9 - Potential Significant Environmental Aspect Areas

Paint and Blast Booths   **Hazardous Material / Igloo Area**

Facilities and Equip. Maintenance   **Recycling**

Fire Department   **Tactical Vehicle Storage area**

Base Support Shops   **DOIM (Information)**

Hazardous Waste 90-Day Area Storage Facility

4.3.2 Legal and Other Requirements

✓ Establish, implement and maintain a procedure to:

✓ identify and have access to applicable legal and other requirements related to environmental aspects

✓ determine how these requirements apply to the environmental aspects

✓ Ensure they are taken into account when establishing, implementing and maintaining the EMS

Objectives, Targets and Programs Definitions

Systematic process to achieve continual improvement.

❑ ***Environmental Objective:*** *An environmental goal to be achieved, consistent with the environmental policy.*

❑ ***Environmental Target:*** *Detailed measurable performance requirement to be met in order to achieve the Environmental Objectives.*

4.3.3 Objectives, Targets and Programs

- Establish, implement and maintain

  - Environmental Objectives and Targets, and

  - Programs to achieve them.

- Objectives and Targets should be set at all applicable levels, and should be measurable, where practicable.

- Programs designate the who, how and when.

- Items that are part of establishing objectives and targets

  - environmental policy

  - legal & other requirements,

  - significant environmental aspects,

  - technological options,

  - financial, operational and business requirements,

  - views of interested parties

Objectives and Targets for Significant Aspects

Drinking Water

Objective:

Reduce contaminants in drinking water.

Target:

Install new filtration system by May 2011. Reduce uranium levels by 40% and iron and manganese levels by 60%.

Hazardous Waste

Objective:

Reduce hazardous waste generation, reduce amounts of hazardous waste stored and shipped off-site.

Target:

Increase diversion of hazardous waste through means of recycling by 15%.

Objectives and Targets for Significant Aspects

OB/OD Hill Clean-up

Objective:

> To complete site clean-up or alternate method of closure resulting in a Record of Decision (ROD).

Target:

> 100 % Completion of remedial investigation/feasibility study (RI/FS) by FY14.

Equipment Painting

Objective:

> Reduction of air emissions and hazardous waste.

Target:

> Reduce volatile organic compound air emissions (voc) by 20% and hazardous waste generation by 15%.

Planning

❑ What product or service are you providing?

❑ Are there any potential environmental aspects? If yes, what are the potential impacts? What do you need to do to prepare for working with environmental aspects or impacts?

❑ Have you involved all relevant groups or organizations in your planning process?

❑ Have you applied for all required permits or authorizations?

❑ Pre-planning is critical to keeping projects on schedule!

4.4.1 Resources, Roles, Responsibility and Authority

SIAD management ensures the availability of resources to establish, implement, maintain and improve its environmental management system. Resources include human resources and specialized skills, organizational infrastructure and financial resources.

Roles and responsibilities of SIAD's management personnel are defined and communicated through the SIAD organizational chart, documented position descriptions, environmental management system procedures and work instructions.

4.4.1 Resources, Roles, Responsibility and Authority *(continued)*

SIAD Top Management has appointed the **Garrison Manager as the Environmental Management Representative (EMR)** with the responsibility and authority to ensure that:

- Environmental management system requirements are established, implemented and maintained in accordance with the ISO 14001 international standard.

- Reporting to Top Management on the operational performance of the documented environmental management system for review including recommendations for improvement.

4.4.2 Competence, Training and Awareness

Provide adequate training to personnel who deal with environmental issues

Ensure personnel are capable to perform their responsibilities

- Requires that all persons performing tasks associated with significant environmental impacts to be competent

- Identify Training Needs associated with environmental aspects and EMS, provide training and keep records

- Establish, implement and maintain a procedure to make persons working for it or on its behalf aware of several specific items

4.4.3 Communication

System of internal and external communication in place for the EMS and environmental issues

- Establish, implement and maintain a procedure for

  – Internal Communication among the various levels and functions of the organization about Environmental Aspects and EMS

  – Receiving, documenting and responding to "relevant" communications from external parties

- Decide whether to communicate externally about significant aspects, and document its decision. If the decision is to communicate, must establish and implement a method(s) for this external communication.

Documentation, and Control of Documents

Specifies documentation to be in place for EMS and how that documentation will be handled

4.4.4 Documentation

- EMS documentation must include:

    – Environmental policy, objectives and targets

    – Description of EMS scope

    – Description of main elements of EMS, their interaction and reference to related documents

    – Documents and records required by ISO 14001

    – Documents and records necessary to ensure effective planning, operation and control of processes related to significant impacts

4.4.5 Control of Documents

- Must establish, implement and maintain a procedure to

  – Approve documents for adequacy prior to issue

  – Review and update as necessary and re-approve documents

  – Changes and current revision status of documents are identified

  – Relevant versions are available at points of issue

  – Documents remain legible and readily identifiable

  – Documents of external origin are identified and controlled

  – Prevent unintended use of obsolete documents, and suitably identified

4.4.6 Operational Control

Plan and carry out processes to prevent and minimize impacts to the environment

- Must identify and plan operations associated with significant aspects so they are consistent with the Environmental Policy, and Objectives and Targets

- Operational Controls are used to minimize impacts to the environment and prevent pollution

- Must establish, implement and maintain documented procedures to control situations where the lack of documented procedures could lead to deviations from the Environmental Policy, and Objectives, and Targets

- Procedures must have operating criteria (SOPs, LOIs, Desk Guides, etc.)

- Procedures and requirements must be communicated to suppliers and contractors

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4.4.7 Emergency Preparedness and Response

Procedures for identifying and managing emergencies that can have environmental impacts

- Establish, implement and maintain procedures to identify potential emergency situations and accidents

- Respond to actual emergency situations and accidents, and prevent or mitigate adverse environmental impacts

- Review and revise procedures, especially after an accident or emergency occurs

- Periodically test procedures

SPILL PROCEDURES

In the event of a spill of any amount of chemicals, petroleum products, hazardous material, or residues from process operations, paint operations, etc., the following actions shall be taken by the individual causing, witnessing, or discovering the spill:

1. Evacuate personnel from the immediate area as necessary.

2. Notify Security by calling: **911**

3. Security will then notify the following in the order listed:

Fire Department	x4911	-or-	x4309	
Safety	x4234			
Environmental	x4381	-or-	x4235	-or- x4622

4. Non-emergency spills, call: x4381   -or-   x4235   -or-   x4622

5. **If it is safe to do so and within your level of training**, stop the spill from spreading by:
   ➢ closing any open valves or levers, or;
   ➢ berming the spill with absorbent material, spill socks, spill dikes, or soil.

❖ Contact Environmental for any information or assistance completing your mission in an environmentally safe manner.

530-827-4381	x4381	Environmental Protection Specialist
530-827-4235	x4235	Hazardous Waste Program Manager
530-827-4622	x4622	Chief, Environmental

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4.5.1 Monitoring and Measurement

Formal process for tracking environmental performance

- Must establish, implement and maintain procedure to monitor and measure key characteristics of operations and activities that could have significant impact on the environment

- Procedure must include documenting information to monitor performance, operational controls and conformance with the Objectives and Targets

- Monitoring equipment must be calibrated, maintained and records kept

4.5.2 Evaluation of Compliance

Systematic process for evaluating compliance with applicable regulations and other requirements

- Establish, implement and maintain a procedure for periodically evaluating compliance with applicable legal requirements and keep records of the evaluation

- Evaluate compliance with "other requirements" and keep records of the evaluation

- Can combine the two evaluations or establish a separate procedure for "other requirements"

Nonconformity, Corrective Action and Preventive Action Definitions

Systematic approach to identifying problems and fixing them in a manner so they will not occur again

- Nonconformity - non-fulfillment of a requirement

- Corrective action - action to eliminate the cause of a detected nonconformity

- Preventive action - action to eliminate the cause of a potential nonconformity

4.5.3 Nonconformity, Corrective Action and Preventive Action

- Must establish, implement and maintain a procedure for dealing with actual and potential nonconformities, and taking corrective and preventive action

- Procedure must define requirements for:
    - Identifying and correcting nonconformities and take action to mitigate impacts
    - Investigating nonconformities, determining cause(s) and taking action to avoid recurrence
    - Evaluating need for action to prevent nonconformities, and implement appropriate actions
    - Recording results of corrective and preventive actions taken
    - Reviewing the effectiveness of corrective and preventive actions

- Corrective or preventive action must be appropriate to magnitude of problem and environmental impact

- Must ensure changes are made to EMS documentation as needed

4.5.4 Control of Records

Specifies records to be in place for EMS and how the records will be handled

- Establish and maintain records to demonstrate conformance to your EMS and ISO 14001

- Establish, implement and maintain a procedure for identification, storage, protection, retrieval, retention and disposal of records

- Records must be legible, identifiable and traceable

Internal Audit

Conduct checks (EMS audits) to determine if EMS is working properly

4.5.5 Internal Audit

- Ensure internal audits of your EMS are conducted at planned intervals to
  - Determine whether your EMS
    - Conforms to ISO 14001 Standard
    - Has been properly implemented and maintained
  - Provide audit results to management

- Audit program shall be established, implemented and maintained, and take into account environmental importance of the operation and results of previous audits

- Audit procedures shall be established, implemented and maintained that address

  - Responsibilities and requirements for planning and conducting audits, reporting results and retaining records

  - Determination of audit criteria, scope, frequency, and methods

- Auditors must be objective and impartial

4.6 Management Review

Top Management shall review your EMS at planned intervals to:

- Ensure the continuing suitability, adequacy and effectiveness of EMS

- Need to assess opportunities for improvement and need for changes to EMS, environmental policy and objectives and targets

- Review must be documented and records retained

- ISO 14001 outlines requirements for inputs and outputs to management review

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Input to Management Reviews **shall** include:

a) Results of internal audits and evaluations of compliance with legal requirements and with other requirements to which the organization subscribes,

b) Communication(s) from external interested parties, including complaints,

c) The environmental performance of the organization

d) The extent to which objectives and targets have been met

e) Status of corrective and preventative actions,

f) Follow-up actions from previous Management Reviews

g) Changing circumstances, including developments in legal and other requirements related to its environmental aspects, and

h) Recommendations for improvement.

4.6 Management Review
ISO 14001 Requirements (continued)

The outputs from management reviews shall include any decisions and actions related to possible changes to the environmental policy, objectives, targets and other elements of the EMS, consistent with the commitment to continual improvement.

External Audits

☐ Stage 1: Requires full system internal audit prior to Stage 1 audit.

☐ Stage 2: Requires successful Stage 1 audit.

☐ Certification: Requires successful Stage 2 audit.

Examples of Environmental Concerns

❑ What do you do and who do you call in case of a spill of Hazardous Material or Hazardous Waste?

❑ I have an expired can of Hazardous Material, what should I do with it?

❑ What should I do with Hazardous Wastes?

❑ Do I have a SOP or LOI for my process or operation? If not, why not?

Environmental Management Team

❑ Garrison Manager/Environmental Management Representative (EMR)

❑ EMS Team Leader/Environmental Chief

❑ EMS Coordinator/Env. Protection Specialist

❑ Environmental Protection Specialists

❑ ISO Office Coordinator/ISO Division Chief

❑ Department Supervisors

PROTECTING THE ENVIRONMENT IS EVERYONE'S JOB

ISO 14001:2004 EMS AWARENESS TRAINING COMPETENCY

An ISO 14001:2004 EMS Awareness Training Competency Test is required.

To obtain a copy of the test, please contact:

EMS Coordinator   530-827-4857, or

Training Office   530-827-4800, or

Environmental Chief   530-827-4622

SIAD tenant organizations are required to keep record of training and test results on file.

Contractor organizations working for or on SIAD are required to provide record of training and competency test results to the Contracting Office.